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ADDITIONS TO THE FLORA OF COLORADO--X

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The last number of this series was published in Phytologia 53:191-193. 1983. Three-letter family acronyms are used, following Weber (1982).

NEW RECORDS FOR COLORADO INDIGENOUS TAXA

ASTRAGALUS RAFAELENSIS Jones, Rev. Astrag. 146, Pl. 30. 1923 (FAB). MONROSE CO.: between Rock Creek and Mesa Creek, Dolores River Canyon, 11 mi N of Uravan, 28 May 1982, Ratzloff (COLO 381859), Uravan, SW of river, NE-facing slope above highway. 20 May 1982, J. Anderson (COLO 387588), 4 mi W of Uravan, Hwy. 141, 1 May 1982, Cudlip 43, S side of Dolores River just before bridge crossing to main highway, 29 May 1982, Weber & Wittmann 10683 (det. Barneby).

GILIA CLOKEYI H. L. Mason, Madrono 6:202. 1942 (PLM). MESA CO.: Grand Mesa between Lands End road and N Fork Kannah Cr., 23-24 May 1981, Siplivinsky 983, 1023; NE of DeBeque, 25 May 1979, Weber et al 1899; 16 km NW of Mack, 25 May 1976, Cronquist 11430. MONROSE CO.: Roubideau Canyon, 25 May 1978, Johnston et al 21566.

GILIA TRIODON Eastwood, Zoe 4:121. 1983 (PLM). MESA CO.: Grand Junction, Eastwood (COLO 30505); Redlands Road, 17 May 1978, Weber 15322. MOFFAT CO.: Indian Rock, ca. 3 km NNE of Sunbeam, 23 May 1978, Peterson et al 460; 28 mi SE Greystone, 16 June 1978, Weber & Wingate 15403. MONTEZUMA CO.: 22 mi SW of Towaoc, 7 June 1952, Weber 7645. All of these collections had been passing as Gilia leptomeria A. Gray.

GILIA TWEEDYI Rydb., Bull. Torr. Bot. Club 31:634. 1905 (PLM). MOFFAT CO.: ridge separating Conway from Vermilion drainage, between Greystone and Gates of Lodore, 26 June 1965, Weber & Salamun 12616.

LESQUERELLA ARENOSA (Rich.) Rydb. var. ARGILLOSA Rollins & Shaw, Genus Lesquerella in North America, p. 178-179. 1973 (BRA). LOGAN CO.: clay ridges NE of Julesburg (Jumbo) Reservoir, at top of grade crossed by Road 93, N of the Platte River, 1,200 msm, 21 May 1983, Weber & Wittmann 16627, 16635 (flowers), 9 July 1983, R. C. Wittmann 2262 (fruits). Known previously from the Black Hills of South Dakota, Wyoming and Nebraska.

RIBES DIVARICATUM Dougl., Trans. Hort. Soc. London 7:515. 1830 (GRS). BOULDER CO.: Pine Glade School, 22 Aug. 1907, Ramaley 3744; Boulder, April 1908, Ramaley 4680; PARK CO.: upper Buckskin Cr. above Alma, 11,000 ft., 30 Aug. 1940, Ewan 12671. ROUTT CO.: Steamboat Springs, July 1891, Eastwood (COLO 38542). SUMMIT CO.: Blue River Valley 8 mi N of Silverthorne, 2,600 msm, 22 June 1982, Weber & Wittmann 16193. These sheets were determined by Quinn Sinnott, 1982, and had been previously misidentified as R. inerme Rydb.

SCUTELLARIA RESINOSA Torr., Ann. Lyc. N. Y. 2:232. 1828 (LAM). MONTROSE CO.: above Colorado Hwy. 90 less than 2 miles from the Utah State line; below sandstone cliffs, 1,830 msm, 24 May 1979, D. L. & M. L. Denham 74003. This collection presents a distributional anomaly, since according to Epling (1942), S. resinosa does not occur west of western Nebraska and Texas. Geographically, one more likely would expect S. potosina Brandegee, but even here the disjunction is rather major, from central Arizona and southwest New Mexico. I therefore tend to suspect that the plant has been accidentally introduced into western Colorado through earth-moving equipment, but more field observations should be made to determine whether the plant still survives, what the population size is, and the specific nature of the habitat.

ADVENTIVE TAXA

ADENOLINUM GRANDIFLORUM (Desf.) W. A. Weber (LIN). BOULDER CO.: Boulder Mountain Parks, junction of Mesa Trail and Enchanted Mesa Trail; re-seeded area in Pinus ponderosa groves, 1,600 msm, 15 July 1983, R. C. Wittmann 2265. This species, an annual with brilliant red flowers, has been established for many years in California and evidently has come in with "native seed" mixtures used in reclaiming beetle-killed pine land.

RE-EVALUATIONS

HEDYSARUM ALPINUM L. (FAB) was reported for the Gunnison Basin (GN: Needle Creek Valley, Barrell & Spongberg 70-66) by Barrell (1969, p. 269). Two specimens were deposited in US, one of these since transferred to COLO. We have examined them, and

find that were misidentified. They represent Astragalus bisulcatus (Hook.) A. Gray ssp. bisulcatus. The plants lack mature fruit but the flowers have typical curved Astragalus keels and lack the characteristic stipules of Hedysarum.

REFERENCES

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UNA HELICONIA NUEVA DE COLOMBIA

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El presente trabajo reporta el hallazgo de una nueva especie del género *Heliconia*, de material coleccionado al sur del Departamento del Huila en el Valle de Laboyos. Para el sistema de medidas e ilustraciones se ha mantenido el mismo patrón que se utilizó en publicaciones anteriores (Abalo & Morales L., 1982; Abalo & Morales L., 1983). Todas las medidas e ilustraciones están basadas en material vivo.

Debido al gran número de especies encontradas, se hicieron intentos para establecer un banco de germoplasma en Colombia, pero no fué posible continuarlo por carencia de recursos y por falta de instituciones nacionales que contemplen la instauración de este tipo de programas.

Heliconia abaloi Morales, sp. nov.

Planta musoides. Pseudocaulis 1.5 - 2.3 m altus. Petiolus 45 - 140 cm longus. Lamina 110 - 170 cm longa, 24 - 40 cm lata. Inflorescentia pendula. Pedunculus ruber, pubescens. Rachis rubra, pubescens. Spathae rubrae, aureomarginatae, distichae, reflexae. Perianthium luteum, gibbosum, 4.5 - 5.0 cm longum. Pedicellus laete pubescens. Ovarium luteolum. Rudimentum aristoides adest.

Planta musoide. Pseudotallo 1.5 - 2.3 m. Hojas 5 - 6, pecíolo 45 - 140 cm de largo, glabro; lámina 110 - 170 cm de largo por 24 - 40 cm de ancho, base inequilátera semicordada, ápice obtuso. Inflorescencia péndula, 55 - 120 cm de largo; pedúnculo y raquis rojos con pubescencia marrón, pedúnculo 15 - 35 cm de largo; raquis 40 - 85 cm de largo. Espatas externamente rojas con el borde amarillo, internamente rojo - naranja, 13 - 20 por inflorescencia, ligeramente pubescentes en la base, el resto glabro, borde involuto en la parte inferior y ondulado hacia el ápice, reflexas, dísticas aunque la inflorescencia experimenta una rotación por presión entre espatas al refexionarse; la primera espata basal estéril o fértile, 12 - 24 cm de largo por 3.5 - 4.0 cm de ancho; espatas medias 8.5 - 13.5 cm de largo por 3.5 - 4.5 cm de ancho en la parte media. Brácteas amarillo claro, carinadas, pubescentes exteriormente, 4. - - 6.0 cm de largo por 2.0 - 2.3 cm de ancho en la parte media